

CLAIMS

What is claimed is:

1. A method for erasing information recorded on a recording medium, comprising:
searching for test result information on a recording power recorded on a recording management area disposed on the recording medium;
reading the test result information if the test result information is found; and
recording a unique pattern, on at least a portion of a user data area of the recording medium where information is previously recorded, by using a recording power based on the read test result.
2. The method of claim 1, further comprising:
storing an indicator on the recording medium identifying that an area where the unique pattern is recorded is an area that is erased and ready for future recording.
3. The method of claim 2, wherein the indicator is erasure information stored in a lead-in area of the recording medium.
4. The method of claim 3, wherein the erasure information comprises a location pointer, indicating the location of the recorded unique pattern.
5. A method for erasing information recorded on a recording medium, comprising:
searching for a test result information on a recording power recorded on a recording management area disposed on the recording medium;
testing a recording power in a power control area, disposed on the recording medium, if the test result information is not found in the searching of the test result information; and
recording a unique pattern, on at least part of a user data area of the recording medium, where information is previously recorded, by using a recording power result of the testing of the recording power.
6. The method of claim 5, further comprising storing an indicator on the recording medium identifying that an area where the unique pattern is recorded is an erased area that is available for future recordings.

7. The method of claim 6, wherein the indicator is erasure information stored in a lead-in area of the recording medium.

8. The method of claim 7, wherein the erasure information comprises a location pointer indicating the location of the recorded unique pattern.

9. The method of claim 5, wherein the indicator is recording flag information, indicating an erased area of the user data area, stored in the user data area in front of the unique pattern.

10. The method of claim 5, wherein in the testing of the recording power, the testing is performed based on a power control area disposed in a lead-in area of the recording medium.

11. An apparatus for recording information on a recording medium, comprising:
a modulation unit modulating information into a data format to be recorded on the recording medium;

a laser driver unit driving a laser diode to record the modulated information on the recorded recording medium;

a photo-detector unit receiving a reflection of the laser beam, off the recording medium, and outputting information of the received laser beam; and

a control unit providing output the information to the modulation unit and controlling an output laser power of the laser driver unit, based on the output recorded information provided by the photo-detector unit so that the modulated information is recorded on the recording medium,

wherein while the control unit receives recorded output information, the control unit searches for power test result information recorded on a recording management area of the recording medium, tests the recording power of the laser beam in a power control area disposed on the recording medium if the test result information is not found, and controls the power of the laser driver unit by using the result of the test or search, such that a unique pattern is recorded in at least part of a user data area of the recording medium where information is previously recorded.

12. The apparatus of claim 11, wherein the control unit controls the power of the laser driver unit by using the test result information such that a unique pattern is recorded in at least part of the user data area if the test result information is found.

13. The apparatus of claim 11, wherein the control unit generates an indicator identifying that the area where the unique pattern is recorded is an erased area and available for future recording.

14. The apparatus of claim 11, wherein the control unit records, on the recording medium, erasure information, which identifies where the unique pattern is recorded, in a lead-in area of the recording medium.

15. The apparatus of claim 14, wherein the control unit records a location pointer, on the recording medium identifying the location of the unique pattern, as the erasure information, in the lead-in area of the recording medium.

16. The apparatus of claim 11, wherein the control unit tests the recording power based on a power control area disposed in a lead-in area of the recording medium.

17. The apparatus of claim 11, wherein the control unit records flag information on the recording medium, identifying the area where the unique pattern is recorded as an erased area, in the front of the area where the unique pattern is recorded.

18. A recording medium, comprising:
a lead-in area storing a power control area for testing a recording power level of a laser beam from a recording and/or reproducing apparatus to read and/or write data to the recording medium, and a recording management area of previous test results of a recording power level;
and

a user data area set to being erased partially or completely when a unique pattern is recorded in the user data area, to enable the recording and/or reproducing apparatus to record new data to an erased area without that erased area having been erased with a DC erase level.

19. The recording medium of claim 18, wherein the lead-in area includes erasure information identifying that a portion of the user area where the unique pattern is recorded is an erased area.

20. The recording medium of claim 18, wherein flag information, identifying a portion of the user area as being an erased area, is recorded in front of an area where the unique pattern is recorded, with an area with the unique pattern being the erased area.

21. A medium comprising computer readable code controlling a computer to implement the method of claim 1, for erasing information recorded on the medium or another medium.

22. A medium comprising computer readable code controlling a computer to implement the method of claim 5, for erasing information recorded on the medium or another medium.